

## BRITISH FUNGI.

By M. C. COOKE.

(Continued from page 123.)

The species described or enumerated by Messrs. Phillips and Plowright (see page 124) are not again referred to. About fifty species of Hymenomycetes remain to be included in a subsequent number.

**Leptostroma glechomatis.** *B. & Br. Ann. N.H., No. 1449.*

Spots tawny; perithecia irregular, minute, epiphyllous; spores minute, oblong.

On leaves of ground ivy. Scotland.

**Leptothyrium pictum.** *B. & Br. Ann. N.H., No. 1450.*

Spots rufous, here and there paler, when fertile margined with brown; perithecia shining, ocellate; spores subcymbæform, curved.

On leaves of *Lonicera*. Glamis.

**Septoria Hyperici.** *Desm. Ann. Sci. Nat., 1842, xvii., p. 110.*

Epiphyllous; spots suborbicular, oblong, or indeterminate, rufous-brown, with a yellowish margin; perithecia minute, innate, rather prominent; mouth orbicular, broadly open; tendrils delicate, pale red; spores linear, somewhat curved with 8-16 nuclei.—*Desm. Exs. i., 1178, ii., 678. Berk. & Br. Ann. N.H., No. 1460.*

On leaves of *Hypericum*. Glamis (Rev. J. Stevenson).

Spores (·002 in.) ·05 m.m. long.

**Septoria Stachydis.** *Desm. Ann. Sci. Nat., 1847, viii., p. 19.*

Spots amphigenous, subolivaceous, then pallid brown or bleached, irregular, girt by the veins, scattered or confluent; perithecia epiphyllous, very minute, brownish-black, pierced; spores linear, delicate, curved, or flexuous.—*Berk. & Br. Ann. N.H., No. 1461.*

On leaves of *Stachys sylvatica*. Glamis (Rev. J. Stevenson). Shere (Dr. Capron, 1864).

Spores slender, threadlike (·001-·0015 in.) ·025-·03 m.m.

**Septoria Veronicæ.** *Desm. Ann. Sci. Nat. 1849, xi., 348.*

Spots amphigenous, small, roundish, brown or grey, then bleached and whitish, with an umber margin; perithecia epigenous, globose, brown becoming blackish; spores elongated, very thin, straight or curved.—*Desm. Exs. i., 1710. Phyllosticta Veronicæ, Cooke Fungi Britt. i., 615.*

On living leaves of *Veronica*. Shere.

**Phoma Vitis.** *Bon.*

Minute, punctiform, scattered; perithecia globose, black, piercing the cuticle with the minute ostiola; spores narrowly elliptical, hyaline.—*Cooke Fungi Britt., No. 618, ii. No. 14, with fig.*

On vine twigs. King's Lynn (C. B. Plowright).

Spores ·01-·012 m.m. long.

**Phoma projecta.** *Cooke.*

Gregarious, erumpent; perithecia globose, black, piercing the blackened cuticle with the prominent ostiola; spores narrowly elliptical with 1-3 nuclei.—*Fungi Britannici*, ii., 20, with fig.

On stems of *Umbelliferae*. Mickleham. June.

Spores .015 m.m. long.

**Phoma Pinastri.** *Lev. Ann. Sci. Nat.*, 1846., v. p. 282.

Perithecia gregarious, innate, globose, black, covered by the lacerated epidermis, pierced at the apex. Spores oblong, brown.—*Cooke Fungi Britt.*, ii., No. 16.

On scales of fir cones. Eastbourne (C. J. Muller).

Spores .01 × .006-.007 m.m.

**Hendersonia exigua.** *Cooke.*

Perithecia scattered, minute, punctiform, membranaceous, blackish brown, becoming flattened. Spores small, elliptic, bi-septate, pale brown.—*Fungi Britannici*, ii. 24, with fig.

On smooth bark.

Perithecia not more than .085 m.m. in diameter. Spores .01-.012 m.m. long.

**Excipula congregata.** *Cooke.*

Gregarious, forming dark patches on the stems. Receptacle immersed, furnished with stiff erect black bristles, which burst through the cuticle. Spores linear, curved, obtuse.

On dead stems of wood spurge. Darenth.

**Melanconium elevatum.** *Ca. Icon. iii.* 22, fig. 60.

Stroma broad, white, rarely obliterated, spore-mass very black, diffuent. Spores ovoid or oblong, brown.—*Berk. & Br. Ann. N. H.* No. 1462.

On oak. Langridge. Dec.

Spores (.0005 in.) .0127 m.m. long.

**Pestalozzia funerea.** *Desm. Ann. Sci. Nat.*, 1843., xix., p. 335. *Cooke Handbook*, No. 1402. *Berk. & Br. Ann. N. H.*, No. 1463.

On *Cupressus macrocarpa*. Hatton.

**Torula splendens.** *Cooke. (Pl. 48, fig. 1.)*

Effused in dense black velvety patches. Flocci attenuated upwards, sometimes with one or two patent branches, joints subglobose, compressed, not readily separating, dark brown.

On bark. Forbes (Rev. J. Keith).

A truly splendid species, the flocci have no tendency to break up, and are fully .25 m.m. long, the joints are .01 m.m. diam. towards the base, but smaller above. We know of no described species to which it can be referred.

**Helicomycetes tubulosus.** *Riess. (Pl. 48, fig. 3.)*

White, pellucid, farinaceous. Spores concatenate in a long spiral thread, with a very short stem, joints subquadrate, nucleate.—*Riess in Bot Zeit.*, 1853, fig. 11-13.

On rotten wood. Hereford (J. G. Morris).

This curious fungus we have referred to the above with some hesitation, never having seen a specimen of the plant described by Riess, with the description of which the Hereford specimens appear to agree in many points; the spore threads are decidedly coloured brownish, joints about  $\cdot 01$  m.m. dia.

**Puccinia silenae.** *Rabh. Fung. Eur., No. 1783.*

Spots yellowish; sori roundish or oblong, scattered or aggregated; pseudospores elongated, elliptical, slightly constricted at the septum, on short pedicels, brown; stylospores globose, smooth.

—*Puccinia Lychnidearum, Fekl.*

On leaves of *Silene inflata*. Basingstoke (R. S. Hill).

This is quite distinct from other species on Caryophyllaceous plants, the pseudospores being of a different character, each cell rounded above, or sometimes somewhat obtusely triangular,  $\cdot 03\text{--}\cdot 032 \times \cdot 018$  m.m.; whilst the stylospores (*Uredo* form) are globose, smooth, and about  $\cdot 02$  m.m. diam.

**Puccinia Andersoni.** *B. & Br. Ann. N.H., No. 1464.*

Spots epiphyllous, orbicular, surrounded by a brown border; sori hypophyllous, minute, crowded, almost concealed by the pubescence of the leaf; pseudospores oblong, constricted in the centre, obtusely apiculate.

On leaves of *Cnicus heterophyllus*. Glen Ogle. June.

Pseudospores very like those of *P. discoidearum*, as figured by Corda.

**Puccinia Fergussoni.** *B. & Br. Ann. N.H., No. 1465.*

Spots pallid; sori minute, crowded in orbicular clusters; pseudospores oblong, obtusely apiculate. Pl. 49, fig. 10c.

On leaves of *Viola palustris*. New Pitsligo (Rev. J. Fergusson).

Very different from *P. violarum*, not only in the minute crowded sori, but in the elongated spores.—*B. & Br.* So closely resembling *Puccinia Asari* that undoubtedly the specimens published in "Fungi Britannici," No. 110, belong to this species.

This is one of at least four good species of *Puccinia* that occur on leaves of *Viola*; the other British species is *P. Violarum*, found also in the United States. Pl. 49, fig. 10 a. The pseudospores are about  $\cdot 02\text{--}\cdot 03 \times \cdot 013\text{--}\cdot 016$  m.m. Another species occurs on *Viola hastata*,\* in North America, with pseudospores  $\cdot 035\text{--}\cdot 04 \times \cdot 02\text{--}\cdot 025$  m.m., a very considerable difference in size. The fourth species is *P. alpina*, Fekl., on *Viola biflora*, with still longer and rough pseudospores. Pl. 49, fig. 10 d.

**Puccinia senecionis.** *Lib. Fungi Euxic., No. 92.*

Sori gregarious, circinate, minute, punctiform, convex, covered

\* *Puccinia hastata*. Cooke.—Amphigenis; acervulis sparsis, pulverulentibus, atro-brunneis; pseudosporis ellipticis, leniter constrictis, laevibus ( $\cdot 035\text{--}\cdot 04 \times \cdot 02\text{--}\cdot 025$  m.m.), breviter pedicellatis; stylosporis globosis, laevibus ( $\cdot 02 \times \cdot 022$  m.m.), ad foliis *Violæ hastatæ*. Maine, U.S. (E. C. Bolles, 68). Pl. 49, fig. 10b.

with the epidermis, which is depressed in the centre and perforated, nearly black; pseudospores subovoid, rather small, somewhat apiculate, brown, smooth, peduncles very short.—*Corda Icones*, iv. f. 54. *B. & Br. Ann. N.H.*, No. 1466.

On *Senecio aputica*. Menmuir (Rev. M. Anderson).

This is clearly allied to *P. glomerata*, Grev., and *P. conglomerata*, Kze.; indeed they have been confounded together as synonymous, but without good reason, since all three appear to be distinct from each other.

***Puccinia Tripolii*. Wallr. Fl. Germ., 223.**

Sori large, compact; pseudospores elongated, truncate at the apex, binodulose, or with a thick mammæform appendage.—*B. & Br. Ann. N.H.* No. 1467. *Pucc. Asteris*, Cooke *Fungi Britt. i.*, No. 631.

On leaves of *Aster tripolium*. New Pitsligo (Rev. J. Ferguson). Near King's Lynn (C. B. Plowright).

British specimens agree with those found on the continent on the same *Aster*, and which are referred to *Puccinia Tripolii*, Wallr. Fuckl. has described and published specimens of *Puccinia Asteris* (Fuckl.) on leaves of *Aster simplex*, which does not appear to be specifically distinct. To this latter form we referred the specimens published in *Fungi Britannici* (ed. i., No. 631), but are convinced that all would be better placed under *Puccinia Tripolii*, Wallr. *Puccinia Asteris*, Schwein, is different, of which doubtless *Puccinia Gerardi*, Howe, is a variety. There appears to be slight variations peculiar to the different species of *Aster*, on which this common North American *Puccinia* is found, but none of them are sufficient to warrant the conclusion that they are distinct species.

***Puccinia Scrophulariæ*. Libert Exs., No. 193. Cooke Handbook, No. 1476.**

As far as Libert's specimens go this is not a species of *Puccinia* at all, but of *Uromyces*. If the specimens found at Penzance, and cited by Berk. & Br. in *Annals Nat. Hist.*, No. 471, be the same thing, then it must henceforth be included in its correct genus as *Uromyces Scrophulariæ*.

***Uromyces Geranii*. DC. (Sub. *Uredo*.)**

*Trichobasis Geranii*. Cooke Handbook, No. 1589. *Fungi Britannici*, i., 440, ii. 50, with fig.

The specimens published, as above cited, are certainly *Uromyces*, and not *Trichobasis*.

***Coleosporium senecionis*. Fr. S. V. S., 512.**

Fckl. *Sym. Myc.*, p. 43.—*Trichobasis senecionis*, Cooke Handbook, No. 1485. *Fungi Britannici*, i., 66, ii. 53, with fig.

It seems very doubtful whether this has any relation to *Puccinia glomerata*, as some authors have stated.

***Coleosporium pingue*. Lev. Var. *Alchemillæ*.**

*Berk. & Br. Ann. N. H.*, No. 1468. *Uredo alchemillæ*. P. & Ph. in "*Grevillea*," iii., p. 124.

Scotland, Wales, &c.

**Coleosporium ochraceum.** *Fckl. Fungi Rhen.* 302.

Hypophyllous; sori ochraceous, usually confluent, occupying the whole under surface, pulverulent, pseudospores subglobose, ochrey-yellow, epispore minutely rough.—*Uredo potentillarum* v. *Agrimoniæ* *D. Cand. Fl. Fr.* vi. p. 81. *Cooke Fungi Britt. i.*, 635.

On *Agrimonia eupatoria*. (Also New York, U.S.)

**Æcidium incarcerationatum.** *B. & Br. Ann. N. H.*, No. 1469.

Sori minute, crowded in irregular spots, peridia included in the parenchyma of the leaf, pseudospores pallid.—*Rabh. Fungi Eur.*, No. 1492.

On leaves of *Sagittaria*. Bungay (D. Stock).

The tissue of the peridium is far more delicate than in most of the species. *B. & Br.*

**Uromyces concomitans.** *B. & Br. Gard. Chron.* 1874, p. 228.

Sori crowded in a ring, irregular, plane; pseudospores obovate, even, pedicels attenuated downwards.—*Ann. N. H.*, No. 1470. *Grevillea iii.* p. 74, with fig.

On *Scrophularia nodosa*, surrounding pustules of *Æcidium*.

**Protomyces microsporus.** *Ung. Ecanth.*

Spots white; spores globose, pallid.—*Berk. & Br. Ann. N. H.*, No. 1471.

On leaves of *Ranunculus ficaria*. New Pitsligo.

**Protomyces Chrysosplenii.** *B. & Br. Ann. N. H.*, No. 1472.

Spots white, rather thick. Spores globose, hyaline, pedicellate.

On leaves of *Chrysosplenium oppositifolium*. New Pitsligo (Rev. J. Fergusson).

**Protomyces Fergussoni.** *B. & Br. Ann. N. H.*, No. 1473.

Spots or points brown, irregular. Spores obovate, at first hyaline, very shortly pedicellate, even, then brown.

On leaves of *Myosotis*. New Pitsligo (Rev. J. Fergusson).

**Protomyces menyanthidis.** *De Bary Brandpilze*, p. 19.

*Cooke in Grevillea i.*, p. 7.—*B. & Br. Ann. N. H.*, No. 1474. *Cooke Fungi Britt. ii.*, 47. *Rabh. Fung. Eur.* No. 1500.

On leaves of *Menyanthes* and *Comarum*.

**Stilbum cuneiferum.** *B. & Br. Ann. N. H.*, No. 1451, t. 1, f. 2.

Stem attenuated upwards, simple, or slightly divided, consisting of compacted threads, which are free above, and bear the obversely wedge-shaped pale greenish-brown spores, head ovate.

On rotten cabbage stalks. Batheaston. April.

Habit that of *S. rigidum*. Spores (·0004-·00045 in.) ·01-·011 m.m. long. *B. & Br.*

We have observed another *Stilbum* in company with the *Periconia*, in specimens distributed by Mr. Broome, with a long clavate head and globose spores half the diameter of those of the *Periconia*. It is a very interesting form, and will probably be met with again.

**Periconia brassicæcola.** *B. & Br. Ann. N. H.*, No. 1452 t., i. f. 3.

Stem black, heads globose, at first grey, then black, spores cine-



reous, more or less attenuated towards each end.—*Rabh. Myc. Eur.*, No. 1662. *Cooke Fungi Britt. i.*, 647.

Forming dense masses in the inside of rotten cabbage stalks. Batheaston. April.

Spores ( $\cdot 0002$ – $\cdot 0004$  in.)  $\cdot 005$ – $\cdot 01$  m.m. long.

**Periconia Phillipsii.** *B. & Leight. Ann. N. H.*, No. 1453.

Very minute, stem attenuated upwards, head globose, spores globose, granulated.—*Phillips in Grevillea iii.*, pl. 42, fig. 1. *Cooke Fungi Britt. ii. ined.*

On soil. Trefriw.

Spores ( $\cdot 0004$  in.)  $\cdot 01$  m.m. diam. Looks at first sight like a little *Sphinctrina*, so minute that it is quite invisible to the naked eye. *B. & Br.*

**Cladotrichum uniseptatum.** *Cooke.*

Effused, black; flocci branched, furcate, nodulose, septate, upper joints inflated or cupulate; spores oblong, obtuse, constricted, uniseptate, often collapsed at the extremities, and then apparently truncate. Pl. 48, fig. 2.

On sticks. Darenth. March.

Forming thick black velvety patches, sometimes nearly an inch in length. Closely allied to *C. triseptatum*, but the spores are never more than uniseptate. The collapsed extremities cause the spores to assume a quadrate form, and then there is some resemblance to terminal septa in the line of the collapsed epispore,  $\cdot 02 \times \cdot 01$  m.m.

**Virgasporium.** *Cooke.*

Flocci erect, septate; spores terminal, clavate or baculæform, multinucleate or multiseptate, hyaline.

In habit very similar to *Cladosporium*, which the threads also resemble, but the spores are very different. The flocci are not so rigid, so highly developed, or so carbonized as in most species of *Helminthosporium*, indeed, but for the fruit, the closest affinity is with *Cladosporium* and *Passalora*.

**Virgasporium maculatum.** *Cooke. (Pl. 48, fig. 4.)*

Epiphyllous; flocci fasciculate, short, scattered over sub-orbicular or irregular tawny spots, simple or slightly branched, septate; spores terminal, linear, slightly thickened toward the base, multiseptate, hyaline ( $\cdot 04$ – $\cdot 08 \times \cdot 005$  m.m.).—*Cladosporium (?) maculatum*, *Cooke Fungi Britt. ii.*, with fig.

On fading leaves of *Reseda*. Jersey.

To this genus also belongs *Helminthosporium clavatum*, Gerard,\* and probably *Helminthosporium olivaceum*, B. & C., which we have not seen.

\* VIRGASPORIUM CLAVATUM. (*Ger.*) Pl. 48, fig. 4. Hypophyllis, floccis olivaceis, fasciculatis, erectis, brevibus, septatis. Sporis obclavato-elongatis, multiseptatis ( $\cdot 05$ – $\cdot 75 \times \cdot 005$  m.m.).—On fading leaves of *Asclepias incarnata* (Gerard), and *Gerardia* (Peck). New York, U.S.—There are no definite tawny spots as in *V. maculatum*.

**Botrytis argillacea.** *Cooke, Fungi Britt. ed. ii., ined.*

Effused for 6-12 inches in length, clay-coloured. Fertile flocci branched, dichotomous above, tips slightly thickened, spores oval. Pl. 48, fig. 6.

On sticks. Darent. April.

**Peronospora calotheca.** *D. By. Mem. Peronospora. p. 111, No. 9.*

Flocci slender, 7-9 times dichotomous, primary branches oblique, erect, the rest patent, squarrose, slender, ultimate ramuli short, straight or curved; conidia ellipsoid; oospores globose, epispore bay, minutely reticulated.—*Berk. & Br. Ann. N. H., No. 1454. P. galii, Fckl. Fungi Rhen. No. 28.*

On *Galium aparine*. Forde. Ap. (Rev. J. E. Vize.)

**Peronospora interstitialis.** *B. & Br. Ann. N. H., No. 1455.*

Spots hypophyllous, yellow, confined to the interstices of the veins, or very rarely extending slightly beyond them, flocci very short, flexuous, spores terminal, ovate, often seated obliquely.

On leaves of primrose. Glamis.

Allied to *P. obliqua*. Spores ( $\cdot 0006$ - $\cdot 0007$  in.)  $\cdot 015$ - $\cdot 0175$  m.m. long.

**Peronospora rufibasis.** *B. & Br. Ann. N. H., No. 1456.*

Epiphyllous. Spots shining; tawny, pallid on the opposite surface, flocci linear, spores obovate or elongated, variable, obliquely attached, very shortly pedicellate.

On leaves of *Myrica gale*. Glamis (Rev. J. Stevenson).

Spots very conspicuous; closely allied to *P. obliqua* and *P. interstitialis*.

**Penicillium megalosporum.** *B. & Br. Ann. N. H., No. 1457.*

Snow white, short, flocci fasciculate; spores globose or elongated, even.

In an old chicken coop. Menmuir (Rev. M. Anderson).

Spores ( $\cdot 0005$ - $\cdot 001$  in.)  $\cdot 0125$ - $\cdot 025$  m.m. diam., or equally variable when oblong.

**Fusarium minutulum.** *Ca. Icon. ii., fig. 18.*

Minute, punctiform, white, stroma superficial, convex, fibrous, white, spores minute, oblong, somewhat rounded at the extremities.—*Berk. & Br. Ann. Nat. Hist., No. 1457.\**

On rotten boards. St. Catherine's, Bath. Jan.

Spores ( $\cdot 0002$  in.)  $\cdot 005$  m.m. long.

**Cylindrosporium.** *Unger. Exanthema, p. 166. (Not Greville.)*

Spores cylindrical, fasciculate, springing from the stroma.

The Rev. M. J. Berkeley thinks it probable that *Protomyces* is connected with the species as oospores.

**Cylindrosporium rhabdospora.** *B. & Br. Ann. N. H., No. 1458.*

Amphigenous, spots orbicular, brown; spores forming little radiating fascicles, oblong, slightly hollowed out at the sides, obtuse, triseptate.

On leaves of *Plantago*. Glamis (Rev. J. Stevenson).

Spores ( $\cdot 0008$ - $\cdot 002$  in.)  $\cdot 02$ - $\cdot 05$  m.m. or more long. Sometimes a second is developed at the top of the first.—*B. & Br.*

**Cylindrosporium ficariæ.** *Berk.*

*Glæosporium Ficaricæ.* Cooke Handbook, No. 1413.

**Cylindrosporium niveum.** *B. & Br. Ann. N. H., No. 1459.*

Spots numerous, crowded (1-2 lines) often confluent, brown-marginate. Spores snow-white, oblong, uniseptate, shortly pedicellate.

On *Caltha palustris*. New Pitsligo (Rev. J. Fergusson).

Spores, when mature, ( $\cdot 002$  in.)  $\cdot 05$  m.m. long.

**Myxotrichum ochraceum.** *B. & Br. Ann. N. H., No. 1475, t. 1, f. 4.*

Yellow, then greenish, flocci elongated above, acute, ramuli deflexed.

On shavings of hurdle makers. Near Bath. Mar.

Spores ( $\cdot 00015$  in.)  $\cdot 0035$  m.m. diam. When placed in alcohol they adhere in clusters, as if surrounded by a membrane or involved in mucus.—*B. & Br.*

**Fusidium geranii.** *West. Bull. d. Brux., 1851, p. 413.*

Spots brown, rounded, scattered, rather irregular, confluent and undeterminate, occupying the greater part of the leaf. Spores cylindrical-oval, with one or two nuclei or pseudo-septate.—*Cooke Fungi Britt., No. 685.*

On leaves of *Geranium*. King's Lynn (C. B. P.).

**Mucor pruinosis.** *B. & Br. Ann. Nat. Hist., No. 1495.*

Small, snow-white, vesicles globose, reticulated, spores irregular.

Covering the soil of garden pots. Sibbertoft. Nov.

Spores ( $\cdot 0007$ - $\cdot 0012$  in.)  $\cdot 0175$ - $\cdot 03$  mm.

**Thamnidium elegans.** *Link. Obs. i., p. 45, t. ii. f. 45.*

*Ascophora elegans.* Corda Icon. iii., fig. 43. Cooke Handbook, No. 1881.

On fowls' dung.

**Thamnidium Van Tieghemi.** *B. & Br. Ann. N. H., No. 1496.*

Fertile threads bearing at the apex a single macrosporangium, lateral branches in the upper portion dichotomous, bearing microsporangia, externally rough, containing 1-4, or more, spores.

*Thamnidium elegans, Van Tieghem, Ann. Sci. Nat., ser. 5, vol. xvii. p. 321 (not Corda).*

On cabbage stalks.

**Peziza diminuta.** *Rob. Desm. Ann. Sci. Nat., 1847, viii., 185.*

Very small, scattered or crowded, shortly stipitate, externally whitish, tomentose, at first globose, then open, hemispherical; disc concave, yellowish, or orange ( $\frac{1}{2}$  m.m.). Asci clavate-cylindrical, sporidia oblong. *Peziza apala, Fungi Britt. Exs., No. 287.*

On dry culms of *Juncus*.

The specimens published as *P. apala*, *B. & Br.*, in "Fungi Brit.," No. 287, are, as far as my own copy is concerned, this species, and *not* as named, the sporidia are very different. The figure 183 of this volume belongs to the present species. It may also be remarked here that *Pez. palearum*, *Desm.*, is quite different



from Rabenhorst's "Fungi Europæi," No. 519, as determined by an authentic specimen from Desmazieres, the sporidia are much smaller and not septate, as in "Grevillea" iii., fig. 193, the paraphyses are long and pointed.

**Peziza (*Dasyscypha*) *resinaria*.** Cooke & Phillips.

Gregarious, stipitate; cups at first turbinate, then open ( $\frac{1}{2}$ -1 m.m.), clad externally, as well as the short stem with white villous down; margin inflexed. Disc pale orange yellow. Asci cylindrical ( $\cdot 05$  m.m. long). Sporidia oval, minute ( $\cdot 005 \times \cdot 0025$  m.m.). Paraphyses filiform.—Phillips *Elv. Britt. fasc. ii., ined.*

On resin of Spruce fir. Trefriw, N.W. May, 1874 (W. Phillips).

Mr. Phillips, adverting to the observations at p. 121, on *Peziza subtilissima*, C., and other species of *Peziza* closely allied, has forwarded specimens of the above, which are clearly distinct from any hitherto described. Externally it is more like a minute form of *Peziza bicolor* than *Peziza calycina*, but the fruit is different, the hairs much shorter, and the whole plant much smaller. It is only necessary to compare the sporidia with those of allied species to recognize its claim to rank as a distinct species; these are most like those of *Peziza Agassizii*, B. & C., a North American species, but the asci and sporidia are much smaller, the latter being  $\cdot 01 \times \cdot 005$ - $\cdot 006$  m.m. in *P. Agassizii*, and  $\cdot 005 \times \cdot 0025$  m.m. in the above. Fortunately Mr. Phillips is in possession of sufficient specimens to include this in the forthcoming fasciculus of his "Elvellacei Britannici," together with the *Cenangium* hereafter described.

**Ascobolus (*Ascozonus*. Renny) *cunicularius*.** Renny in Journ.

Bot., Dec., 1874, p. 355, t. 155, fig. 1-4.

*Peziza cunicularia* Boud., Ann. Sci. Nat. x. 258. To this Mr. Renny refers *Ryparobius argenteus*, B. & Br. Ann. Nat. Hist., xi., p. 347.

**Ascobolus (*Ascozonus*) *Woolhopensis*.** Renny in Journ. Bot., p. 356, t. 153.

*Ryparobius Woolhopensis*, B. & Br. Ann. N. H., xi., p. 347.

On birds' dung. Hereford.

**Ascobolus (*Ascozonus*) *Leveillei*.** Renny in Journ. Bot., t. 154, fig. 1-5 (not Crouan).

On rabbits' dung. Hereford.

**Ascobolus (*Ascozonus*) *Crouani*.** Renny. Journ. Bot., t. 154, f. 6-10.

(Not *Ascobolus Crouani*, Cooke, which is a *Peziza* of the section *Humaria*.)

On rabbits' dung. Hereford.

**Ascobolus (*Ascozonus*) *parvisporus*.** Renny Journ. Bot., t. 156, fig. 1-5.\*

On rabbits' dung. Hereford.

**Ascobolus (*Ascozonus*) *subhirtus*.** Renny Journ. Bot., t. 155, fig. 4-7.

On rabbits' dung. Hereford.

**Cenangium subnitidum.** *Cooke and Phillips.*

Gregarious, erumpent, turbinate, becoming patellate, blackish brown; disc ( $\frac{1}{2}$ -1 m.m.), marginate, depressed, then plane or convex, externally naked, opaque or somewhat shining. Asci clavate-cylindrical; sporidia narrowly elliptical, curved, binucleate, pale amber color ( $\cdot 015 \times \cdot 005$  m.m.). Stylospores fusiform, curved, (hyaline  $\cdot 015$ - $\cdot 02$  m.m. long).—*Phillips Elv. Britt. fasc., ii. ined.*

On branches of alder. Trefriw, N.W., 1874 (W. Phillips).

The sporidia are probably at length uniseptate.

**Dermatea Ulicis.** *Cooke.*

Cæspitose or scattered, substipitate; cups at first turbinate, then open, externally reddish brown, furfuraceous (1-2 m.m. broad), disc darker, concave. Asci clavato-cylindrical; sporidia elliptical, uniseptate, brown ( $\cdot 012 \times \cdot 005$  m.m.). Paraphyses subclavate and brownish at the tips.

On twigs of *Ulex*. Shere.

Externally of the color of ground coffee. Allied to such species as *Pez. fascicularis* and *Pez. furfuracea*, which are placed by Tulasne in *Dermatea*.

## CARPOLOGY OF PEZIZA.

(Plates 43, 44.)

The figures are drawn to the same scale as previously, for which see plate 28.

- Fig. 199. *Pezizatectoria*, *Cooke*, *Fungi Britt., ii., ined.*  
 " 200. *P. cornubiensis*, *B. & Br.*, ex. M. J. B.  
 " 201. *P. leporum*, *Fckl.*, *Fungi Rhen.*, No. 1877.  
 " 202. *P. salmonicolor*, *B. & Br.*, ex. M. J. B.  
 " 203. *P. araneosa*, *Bull.*, *Fckl. Fungi Rhen.*, No. 2389.  
 " 204. *P. macrospora*, *Wallr.*, *Fckl. Fungi Rhen.*, No. 1223.  
 " 205. *P. umbilicata*, *Karst.*, *Fungi Fenn.* No. 729.  
 " 206. *P. Gerardi*, *Cooke*, ex. *Herb. Gerard.*  
 " 207. *P. Oocardii*, *Kalch.*, *Rabh. Fungi Eur.*, No. 521.  
 " 208. *P. cochleata*, *Fckl.*, *Fungi Rhen.*, No. 1230.  
 " 209. *P. pulchra*, *Ger.*, fide W. R. Gerard.  
 " 210. *P. arenicola*, *Lev.*, ex. M. J. B.  
 " 211. *P. pusio*, *B. & C.*, ex. M. J. B.  
 " 212. *P. sepulta*, *Fr.*, ex. *Fries in Herb.*, M. J. B.  
 " 213. *P. tomentosa*, *Schwz.*, ex. *Schweinitz*, in *Herb.* M. J. B.  
 " 214. *P. stygia*, *B. & C.*, ex. M. J. B.  
 " 215. *P. arenaria*, *Os.*, ex. M. J. B.  
 " 216. *P. asperior*, *Nyl.*, *Rehm. Ascomy.*, No. 3.  
 " 217. *P. erinaceus*, *Schwz.*, ex. M. J. B.  
 " 218. *P. scutellata*, *L.*, ex. M. J. B.  
 " 219. *P. margaritacea*, *B.*, ex. M. J. B.  
 " 220. *P. setosa*, *N.*, *Fckl. Fungi Rhen.*, No. 1866.  
 " 221. *P. gregaria*, *Rehm. Ascomy.* No. 6. (= *P. brunnea*).  
 " 222. *P. livida*, *Sch.*, ex. M. J. B.  
 " 223. *P. geaster*, *B. & Br.*, ex. M. J. B.  
 " 224. *P. diversicolor*, *Fr.*, ex. M. J. B.  
 " 225. *P. semitosta*, *B. & Br.*, ex. M. J. B.  
 " 225\*. *P. alphetodes*, *B. & C.*, ex. M. J. B.  
 " 226. *P. pubida*, *B. & C.*, ex. M. J. B.  
 " 227. *P. institia*, *B.*, ex. M. J. B.